

## CLAIMS:

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1. A liquid crystal display device comprising:
    - pixel electrodes;
    - a common electrode;
    - a plurality of data lines and a plurality of gate lines intersecting each
    - 5 other;
    - a plurality of switchers, provided for the pixel electrodes, for supplying signals from the data lines to the pixel electrode;
    - a gate line driver for scanning the gate lines;
    - a data line driver for driving the data lines, in accordance with the
    - 10 gradation to be displayed; and
    - a controller for controlling the gate line driver and the data line driver, wherein
    - the controller comprises a signal absence detector for detecting that no signal has been input to the liquid crystal display device,
    - 15 the controller outputs a signal to the gate line driver to make all the gate lines active for a predetermined time after the signal absence detector detects that no signal has been input, and
    - the controller outputs a signal, to the data line driver, to supply an electric potential, applied to the common electrode, to all the data lines for
    - 20 the predetermined time.

2. A liquid crystal display device according to claim 1, wherein the predetermined time is a time required to discharge all the charge from the liquid crystal by supplying the common electric potential to all the pixel electrodes.

3. A liquid crystal display device according to claim 1, wherein the signal whose absence the signal absence detector detects is at least a video signal, a horizontal synchronizing signal, or a vertical synchronizing signal.

4. A liquid crystal display device according to claim 1, further comprising a power supply maintaining circuit for maintaining power after a power supply to the liquid crystal display device is turned off.

5. A liquid crystal display device according to claim 1, wherein the data line driver connects all the data lines to the ground after a power supply to the liquid crystal display device is turned off.

6. A liquid crystal display device according to claim 1, wherein the predetermined time is determined based on a time constant of a resistance and a capacitor.

Sub 2  
7. A method for controlling a liquid crystal display device comprising: pixel electrodes; a common electrode; a plurality of data lines and a plurality

of gate lines intersecting each other; a plurality of switchers, provided for the pixel electrodes, for supplying signals from the data lines to the pixel

5 electrode; a gate line driver for scanning the gate lines; a data line driver for driving the data lines, in accordance with the gradation to be displayed; and a controller for controlling the gate line driver and the data line driver, the method comprising the steps of:

detecting that no signal is input to the liquid crystal display device;

10 making all the gate lines active for a predetermined time after the signal absence detector detects that no signal is input; and

supplying an electric potential, applied to the common electrode, to all the data lines for the predetermined time.

## ABSTRACT OF THE DISCLOSURE

The liquid crystal display device of the present invention comprises:  
pixel electrodes; a common electrode; a plurality of data lines and a plurality  
5 of gate lines intersecting each other; a plurality of switchers, provided for the  
pixel electrodes, for supplying signals from the data lines to the pixel  
electrode; a gate line driver for scanning the gate lines; a data line driver for  
driving the data lines, in accordance with the gradation to be displayed; and  
a controller for controlling the gate line driver and the data line driver. The  
10 controller comprises a signal absence detector for detecting that no signal  
has been input to the liquid crystal display device. The controller outputs a  
signal to the gate line driver to make all the gate lines active for a  
predetermined time after the signal absence detector detects that no signal  
has been input. The controller outputs a signal, to the data line driver, to  
15 supply an electric potential, applied to the common electrode, to all the data  
lines for the predetermined time.